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| (21) International Application Number: PCT/US99/14191 (22) International Filing Date: 23 June 1999 (23.06.99) (30) Priority Data: 60/090,389 23 June 1998 (23.06.98) US 90/134,058 14 August 1998 (14.08.98) US (71) Applicant: CLINICAL MICRO SENSORS, INC. [US/US]; 101 Waverly Drive, Pasadena, CA 91105 (US). (72) Inventors: KAYYEM, Jon, Faiz; 428 S. Sierra Bonita Avenue, Pasadena, CA 91106 (US). BLACKBURN, Gary; 261 N. Lone Hill Avenue, Glendora, CA 91741 (US). O'CONNOR, Stephen, D.; 4222 S. El Molino #16, Pasadena, CA 91101 (US). (74) Agents: TRECARTIN, Richard, F. et al.; Flehr Hohbach Test Albritton & Herbet LLP, Suite 3400, 4 Embarcadero Center, San Francisco, CA 94111-4187 (US). | | (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims</i> <i>and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 3 February 2000 (03.02.00) |
| (54) Title: BINDING ACCELERATION TECHNIQUES FOR THE DETECTION OF ANALYTES | | |
| (57) Abstract <p>The invention relates to compositions and methods useful in the acceleration of binding of target analytes to capture ligands on surfaces. Detection proceeds through the use of an electron transfer moiety (ETM) that is associated with the target analyte, either directly or indirectly, to allow electronic detection of the ETM.</p> | | |

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INTERNATIONAL SEARCH REPORT

Inter: nal Application No
PCT/US 99/14191

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12Q1/68 G01N33/50

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12Q G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | WO 98 20162 A (GOZIN MICHAEL ;YU CHANGJUN (US); KAYYEM JON F (US); CLINICAL MICRO) 14 May 1998 (1998-05-14) | 21-30 |
| Y | see whole doc. and esp. p.31 , 132 ff. | 1-20 |
| Y | US 4 787 963 A (MACCONNELL WILLIAM P) 29 November 1988 (1988-11-29) see esp. claims | 1-20 |
| A | US 5 015 569 A (PONTIUS BRIAN W) 14 May 1991 (1991-05-14) cited in the application | |
| A | WO 96 40712 A (CALIFORNIA INST OF TECHN) 19 December 1996 (1996-12-19) the whole document | |
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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INTERNATIONAL SEARCH REPORT

Inter nal Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| A | <p>DATABASE WPI Section Ch, Week 199803 Derwent Publications Ltd., London, GB; Class B04, AN 1998-029208 XP002124777 "DNA detection for gene analysis in biological and medical application" & JP 09 288080 A (SHIN NIKKA KANKYO ENG KK), 4 November 1997 (1997-11-04) abstract</p> <p>-----</p> | |
| P, X | <p>WO 99 14596 A (BERGGREN CHRISTINE ;JOHANSSON GILLIS (SE); SANGTEC MEDICAL AB (SE)) 25 March 1999 (1999-03-25) see esp. claims</p> <p>-----</p> | 21-30 |

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information on patent family members

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